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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,843	02/22/2002	Jan Blair Wensink	JWens-01-A	9668

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EXAMINER

WIMER, MICHAEL C

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/080,843

Applicant(s)

WENSINK, JAN BLAIR

Examiner

Michael C. Wimer

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 1 and 19, line 1, the language "with respect to plumb, level" is confusing and not entirely understood here. As in the parentheses, applicant means "plumb-to-level". Also, parentheses as used in the claims should represent reference characters in the drawings. It is suggested to remove all parentheses in order to make the recited terms clear. A simple recitation of "compass heading, CH" is sufficient to avoid confusion and indefiniteness in the claims. In Claim 4, there is no proper antecedent basis for "the plurality of sectors" because a plurality has not been defined. A single sector is defined in Claim 3. Claim 10 should end in a period. Claim 17 is confusing because there is no proper antecedent basis for "said interconnection cable", as there is a plurality recited in Claim 5.

Regarding Claim 19, line 16, there is no proper antecedent basis for "said fastener of each bracket" because it is not clear that there is a fastener associated with each bracket. The fasteners recited in line 16 should relate to the bracket(s). In lines 24-25, there is no antecedent for "the CH tie bar", and thus there is no clear understanding of the structure. A similar situation exists in line 27. Also, in line 27, "the first end of said pitman arm" lacks a proper

Art Unit: 2821

antecedent basis because a pair of arms is recited in line 26. In Claim 21, "said tube" lacks a clear antecedent because only Claim 20 first recites a tube. In Claim 22, "said...arms" and "said...bar" lacks a proper antecedent basis. Claim 24 is not understood because no actuator is recited in Claim 18. In Claim 24, line 28, "said spine" lacks a clear antecedent because lines 22 and 23 recite "spines". In line 31, there is no proper antecedent basis for "said drive end." In Claim 25, there is no proper antecedent basis for "said...boxes" in lines 1-2. In lines 10,13 and 15, there is no antecedent for "said...box." In lines 34 and 35, there is no antecedent basis for "said...optoisolator" because line 33 recites a module. In line 35, there is no antecedent for "said...cable." In the last line "9_Vdc" should be --9-Vdc--.

Regarding Claim 26, "P-L" and "CH" lack a proper definition. The claim is confusing because it lacks a recitation of a computer and media. For example, a "parallel port connection" implies a physical computer connected with a line in order to initialize and prompt, test, prolong, pause, activate, etc., involving all of the steps recited. Line 21 is not understood because a selection screen was not previously recited.

Clarification is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2821

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4,6-9 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hock (5486835) in view of Boling (5952980).

Regarding Claims 1-4,14 and 15, Hock shows in Fig. 1 a system for remotely adjusting an antenna in azimuth only, comprising an antenna comprised of a plurality of antennas 105,110 defining a sector and array, its optimizing apparatus 115 in communication with the antenna, because it rotates the antenna via a rotor therein, a field interconnection box 120 in communication with the optimizing apparatus, a power source for the "assorted electronics and software" within the box 120 (col. 2, line 57 to col. 3, line 3), and a computer (col. 4, lines 14-17) in communication with the box 120. No elevation adjustment (i.e., plumb-to-level) is taught because the beam is designed to be wide in elevation. However, when a narrow elevation beam is needed in an antenna arrangement, the skilled artisan would find it obvious to look to the AZ-EL system of Boling. Boling shows the basic azimuth motor and encoder/control mechanism 24 and motorized lead screw 40 for rotating the flat-panel antenna 16 about AZ axis 22 and an EL axis, respectively. Additionally, the elevation motor/encoder 42 is capable of rotating through an elevation angle of -45 to 100 degrees (col. 4, third paragraph). It would have been obvious to the skilled artisan to employ such an AZ-EL mount atop the tower of Hock in order to control rotation of the antenna about two axes.

Art Unit: 2821

Regarding Claims 6-9, the power source is strictly an obvious choice and a skilled artisan would have found it obvious to employ any number and available power sources in the Hock system.

Regarding Claims 11-13, the specific type of computer is not suggested by Hock, but it is taught in col. 4, first paragraph, that the computer and its techniques of processing is left to the skilled artisan. Thus, it would have been obvious to the skilled artisan to employ any type of computer that performs the command for antenna control.

Regarding Claim 16, a natural structure is an obvious site for an antenna system, and well established by the skilled artisan.

4. Claims 5,10,17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hock as applied to claim 1 above, and further in view of Judd (6583763 B1).

Regarding Claim 5, Hock does not suggest a plurality of field boxes. Thus, Judd is cited as evidence of obviousness and as resolving the level of ordinary skill in the antenna art and shows in Fig. 5, for example, a plurality of interconnection boxes 48,62 at the top of the tower 42.

Regarding Claim 10, since Judd teaches the use of the antenna system for cellular phones, it is obvious to the skilled artisan that the sectors of antennas at a cell site employ the division of calls as recited here.

As to Claims 17 and 18, a wire cable is shown in Fig. 7 and a fiber optic cable 82 is shown in Fig. 8. It would have been obvious to the skilled artisan to employ

Art Unit: 2821

these engineering techniques of Judd in the antenna system of Hock for the purpose of providing a remote communication system.

Allowable Subject Matter

5. Claims 19-26 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Wimer whose telephone number is (703) 305-3555. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K. Wong can be reached on (703) 308-4856. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Michael C. Wimer
Primary Examiner
Art Unit 2821

MCW
09/08/03